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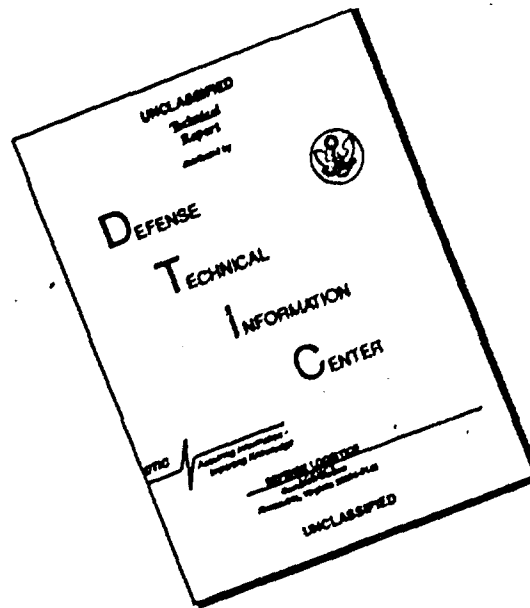
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DEPARTMENT OF THE ARMY  
OFFICE OF THE ADJUTANT GENERAL  
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AGAM-P (M) (14 Feb 69) FOR OT UT 684285

20 February 1969

SUBJECT: Operational Report - Lessons Learned, Headquarters, 44th  
Engineer Group (Construction), Period Ending 31 October 1968

AD849519

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

*Kenneth G. Wickham*

KENNETH G. WICKHAM  
Major General, USA  
The Adjutant General

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as

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DEPARTMENT OF THE ARMY  
HEADQUARTERS 44TH ENGINEER GROUP (CONSTRUCTION)  
APO San Francisco 96233

THCON-OP

15 November 1968.

SUBJECT: Operational Report of the 44th Engineer Group (Construction)  
for the Period Ending 31 October 1968 RCS-CSFOR-65 (RI) #A93AA

1. Section 1, Operations: Significant Activities.

a. Mission: The 44th Engineer Group continues to execute its assigned mission to support US Army and US Air Force Operations in Thailand by executing the troop construction portion of the military construction program, performing engineer reconnaissance, and accomplishing civic action projects as available effort permits.

b. Training Facilities for the Royal Thai Army Volunteer Forces at Kanchanaburi:

On 25 August 1968 the 809th Engineer Battalion (Construction), incident to their redeployment of D Co to the Northeast, transferred responsibilities for the completion of the remaining training facilities at Kanchanaburi to the 561st Engineer Company (Construction). This work, consisting of finishing several training areas and nine (9) additional buildings with a total of 13,500 square feet, was completed by 12 October when the 561st Engineer Company departed. The accomplishment of this mission was a major contribution to the Royal Thai Army Volunteer Forces training facility.

c. Bangkok By-Pass Extension (Route 304):

Route 304 from Korat to Kabin Buri, a total distance of 138 kilometers over some mountainous terrain, was started by the 538th Engineer Battalion in 1965 and was completed this reporting period. This vital link in the North-South line of communication was initially planned to be a fair-weather road, but is now an all-weather, class 50 paved highway. Completion of the paving of the troop portion (KM 57 to 96) was reported last quarter. A task force of the 538th Engineer Battalion, consisting of portions of HQ Co, A Co, C Co, and augmented by the 23rd Royal Thai Army Engineer Battalion (-), completed the construction 1 November. This final effort consisted of constructing

Inclosure

FOR OT UT  
684285

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headwalls, guard rails, caution signs; painting the white divider line; and stabilizing the slopes by shaping, seeding, sprigging, and sodding. The sprigging and sodding effort was augmented by local national villagers who worked to earn materials to help them build their schools (Inclosure 4). This road and the Inland Road, also built by the 44th Engineer Group, will be formally dedicated during the next reporting period on 11 December.

d. Korat Logistical Complex:

(1) The 528th Engineer Detachment (Utilities) continued their construction effort in the Korat Logistical Complex this period. An additional requirement was placed on them because the 44th Engineer Group moved 30 September from Camp USA-THAI to Camp Friendship which is the Korat Logistical Complex.

(2) The major new work completed was the 750 man mess hall (Inclosure 5). The army air facility, a complete complex of seven (7) buildings and associated utilities, is 60.5% complete. Complete now are one of two hangers, one avionics building, and the sewage system.

(3) Work on the other assigned projects is progressing well and is on schedule. These projects include six (6) company headquarters buildings, three (3) department of the army civilian BOQ's, an audio visual center, a craft and hobby shop, a quartermaster self service supply center, athletic facilities, and landscaping.

(4) Several small R&U projects were completed in support of the Post Engineer.

e. Sattahip Cantonment and Consolidated Supply Activities (CSA) Area:

(1) After deployment of B Co, 809th Engineer Battalion to Northeast Thailand, the 538th Engineer Battalion was assigned responsibility for all facilities to be constructed by the 44th Engineer Group in the Sattahip area. B Co, 809th Engineer Battalion finished the dial central building in the CSA before departing, and brought several other buildings close to completion.

(2) The current effort of the 538th Engineer Battalion is still directed at providing a living and working area for 1740 men by January 1969 and a final cantonment for 2000. The scope of work in providing such a "city" with all utilities, morale facilities, billets, mess halls, and required administrative buildings is extensive. Several temporary

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structures are also being built until permanent facilities become available. The type of construction is cement block with asbestos cement (AC) roofing (Inclosures 6 thru 9). The work is on schedule and buildings are being completed continually.

(3) The 538th Engineer Battalion less one platoon working on a civic action project, is now totally assembled in the Sattahip area. The old base camp at Camp Essayons was closed for US Personnel with the finishing of Route 304. The 538th Engineer Battalion has been reinforced in Sattahip during this period by two (2) platoons of the 697th Engineer Company (Pipeline), the 589th Engineer Detachment (Utilities), the 16th Engineer Company (Dump Truck), and the 561st Engineer Company (Construction). The 561st Engineer Company arrived 12 October, and the 16th Engineer Company deployed to the Northeast 8 November, after this reporting period.

f. Northeast Lines of Communication (LOC's):

(1) The 809th Engineer Battalion is fully assembled in the Northeast to work on the LOC's in that area. During this period the battalion has expended the bulk of its effort establishing a base camp at Camp Ruam Chit Chai for Hq Co, A Co, C Co, and the 91st Engineer Company (Dump Truck); and two road camps on Route 22 (Inclosure 10). One road camp, Camp Chang Pradit, is located at kilometer 193 and houses D Co. The other camp is on a portion of the Air Force Base at Nakhon Phanom at kilometer 226 and will house B Co and the 16th Engineer Company (Dump Truck).

(2) The mission remains unchanged. Route 22 from Sakon Nakhon to Nakhon Phanom (Inclosure 1), a distance of 87 kilometers, requires upgrading, construction of drainage facilities, and paving. The second priority is Route 223 from Sakon Nakhon to That Phanom, a distance of 75 kilometers, and requires the same development less paving.

(3) During September the area of Route 22 was deluged with 16 days of heavy rain. A subgrade failure on the route occurred and stopped all traffic for 10 days. This failure further emphasizes the importance of the planned asphalt highway. Work on the upgrading commenced on 1 October with the earthmoving platoons of C and D companies initiating work to clear laterite pits and motor parks. Work is proceeding on culverts, to preclude any recurrence of wash-outs. The road is being built in three sections with C Co to the West, D Co in the center, and B Co to the East (Inclosures 11 and 12). A quarry operation site has been

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cleared west of Sakon Nakhon and one crusher is operating, producing 1000 cubic meters of 1½ in. (-) aggregate per week (Inclosure 13). The quarry floor is 250 meters long with a 2 meter high face (Inclosure 14). Earth work for the asphalt plant site has begun.

(4) The upgrading of Route 223 will be accomplished with the combined effort of the 809th Engineer Battalion and two companies of Royal Thai Army Engineers. The bridges, pipe culverts, and box culverts will be accomplished by the Thai Army Engineers with the assistance of the 809th Engr Bn. This project will be accomplished concurrently with the Route 22 project. One concrete box culvert is complete and one prestressed bridge has been initiated.

(5) Construction effort in the Northeast was reinforced in November with the arrival of the 16th Engineer Company (Dump Truck) from Sattahip.

G. Civic Action:

(1) Units of the 44th Engineer Group continue to participate in numerous civic action projects such as school construction and extension of roads to small villages adjacent to highways under construction. The most noteworthy project undertaken during this period is the construction of a model Thai village (Inclosure 15). This Joint Thai-US project is the relocation of three small villages into one model village in order to weld the community into one efficient and loyal village government, provide for better security against insurgents, and establish a model for the development of other villages. The scope of this work includes upgrading of 14.1 kilometers of access road to the village and construction of approximately 6.5 kilometers of new road to improve the village road network, housing for 300 people, a temple, a temple guest house, a community center, a high school, and 5 dormitories for priests near the temple. In addition, a well for village water supply is being drilled.

(2) Meetings have been held with the governor of Sakon Nakhon in Northeast Thailand to establish a long range civic action program in that area, with main emphasis on improvement of secondary road networks and drilling of potable water wells.

(3) Medical and dental treatment at base camp dispensaries continues with a total of 4,523 local Thai nationals having received treatment during this reporting period.



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h. Well Drilling Operations:

(1) Well drilling operations are continuing at a successful pace by the 809th Engineer Battalion which has the 101st and 182nd Engineer Detachments (Well Drilling) attached. In addition to the two percussion rigs of these units, the battalion has a rotary rig in its A Co. Because of a lack of pumps and intake apparatus or "spiders", some of the wells drilled are not yet operational.

(2) During this period wells were drilled at Camp Ruam Chit Chai, Camp Chang Pradit at kilometer 193 on Route 22, and Nam Pung Dam Special Forces Camp. The well at Uuorn was discontinued because of salt content. Wells are currently being drilled at Greenhill, Phu Kiao, and Warin signal sites. Once military requirements are met, civic action wells will be drilled along Route 22.

i. Rural Development:

(1) The 549th Engineer Detachment continued its mission under the control of the United States Operations Mission, Thailand. During the month of August, the training of the third cycle of students was completed. This is the final cycle of students in the equipment operation and maintenance course for this calendar year. This training is scheduled to resume in January 1969.

(2) The teams have now consolidated at Sakon Nakhon to conduct a drivers training course. The first cycle consisting of 107 students, reported for training on 30 September 1968 and graduated 29 October 1968.

2. Section 2, Lessons Learned: Commander's Observations, Evaluations, and Recommendations.

a. Personnel:

(1) OBSERVATION: The Group is at 97% of its assigned versus authorized strength. This improvement during the reporting period was due in large part to bulk fills. Consequently, many inexperienced and, in some cases, untrained personnel are assigned against skilled TOE positions. Replacements have been properly requisitioned, but many requisitions were not filled and/or validated, thus necessitating bulk fills.

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(2) EVALUATION: Bulk fill personnel lacking MOS qualification place an OJT burden on Group units already saddled with an extensive construction mission.

(3) RECOMMENDATION:

(a) That personnel requisitions be validated or that the Group be immediately informed of non-validated requisitions so that requisitions may be resubmitted.

(b) That an effective personnel management program be established by higher headquarters to lessen the need for bulk fills.

b. Operations:

(1) Quality Control:

(a) OBSERVATION: As pointed out in the previous period, the lack of MOS-qualified surveyors and soils technicians has had a serious effect on the quality of our construction. Surveyors have recently arrived and should improve the quality of work next period. Both battalions and Group Headquarters lack the complete Soils Test Set #1, which is an absolute necessity in all types of construction work. Parts of these sets are worn out, turned in, and have been on requisition for approximately 18 months without supply action.

(b) EVALUATION: The trained personnel on hand in the battalions have performed a small miracle in the area of on-the-job training. Although on-the-job training is excellent schooling for the man, the construction effort is suffering from a disproportionate amount of unskilled supervisors. In the year it takes to make a good supervisor the man benefits greatly and the construction becomes increasingly better, but then the man rotates and the schooling process has to begin again.

(c) RECOMMENDATION: That a better proportion of supervisors with experience and MOS-qualified personnel be assigned. That requisitions for quality control items be filled.

(2) Placing Water or Sewer Pipe:

(a) OBSERVATION: From the experience of the 697th Engineer Co (Pipeline), it has been learned that in placing asbestos cement (AC) water or sewer pipe in or under water, as is being done in Sattahip, that sandbags should be used. The excess water is from both surface and ground sources, and the pumps available are not able to keep the ditches

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dry. The infiltration of ground water creates instability of the base sand in the ditch. In fact, the water flow reaches the bearing capacity of the sand to the point of a "quick" condition or zero support. Therefore, when a section of pipe is coupled to the previously laid section of pipe, the section is manually held at grade while a bed of sandbags is placed along both bottom and sides of the pipe. Finally a row of sandbags is placed on top of the pipe.

(b) EVALUATION: This is a good working solution. The sandbags serve three purposes: first to act as a base for the pipe; second to hold the pipe in line while backfill is being placed; and third, to protect the top of the pipe from puncture while placing backfill.

(c) RECOMMENDATION: That this technique be taught in the army school system and be passed to other units.

c. Training:

(1) OBSERVATION: Due to the high priority of the projects assigned this unit, all training, with the exceptions of on-the-job training, command information, character guidance, and safety lectures were suspended during this period. There is a need for familiarization firing of assigned weapons and increased maintenance training.

(2) EVALUATION: This unit has directed group units to initiate familiarization firing of assigned weapons. The 9th Logistical Command had instituted a training center at Camp Friendship under the control of the 7th Maintenance Battalion. Class subjects will include TAERS, repair parts, operation of specialized equipment and maintenance diagnostics. The utilization of the expertise available through these courses will reduce prime time loss through on-the-job training and should improve overall maintenance.

(3) RECOMMENDATION: That other units be encouraged to utilize such training.

d. INTELLIGENCE:

(1) OBSERVATION: Routine intelligence and counterintelligence operations are being employed in accordance with existing directives. All group members have been indoctrinated in the SAEDA program.

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(2) EVALUATION: None of the group units have been the subject to overt activities.

(3) RECOMMENDATION: That other units take similar action.

e. LOGISTIC:

(1) Critical Shortages:

(a) OBSERVATION: Critical shortages of major end items continue to be a major problem. Shortages of 10 ton tractors are being filled, and a small number of water distributors are arriving in country. However, the situation with cranes and scoop loaders has become more critical. Units are reluctant to turn in old, worn out pieces of equipment because of poor supply response for such items.

(b) EVALUATION: Current shortages of water distributors and 10 ton tractors should be rectified in the near future. However, shortages hamper the Group's vertical construction capability. The major problem area is with the Closed Loop System (CLS). Shortages of 20 ton cranes and scoop loaders continue with only insufficient quantities programmed for the command. It should further be noted that programmed scheduling for CLS items tend to slip. Other problems with CLS items concern inherent weaknesses in certain models of equipment. Allis-Chalmers' HD16M is the only model of full tracked tractor coming into country, for fills of heavy and medium allowances. Our units are reluctant to turn in the older but more efficient Caterpillar D7E's and D-8's and International Harvester TD 24's for HD16M's. The reason for this is that HD16M's tend to breakdown more quickly and are incapable of performing tasks required for heavy full track tractors in Thailand. Another problem area is with Hough scoop loaders, the standard model under CLS. The tilt and lift cylinders of this model are materially defective, a problem which has forced the retrograde of two scoop loaders, under one year old, within the last two months.

(c) RECOMMENDATIONS: That action be taken to make the closed Loop System more responsive to the immediate needs of units. The present yearly incoming schedules tend to slip and become irrelevant. Consideration should also be given to rechanneling Caterpillar and International Harvester full track tractors into the supply system.

(2) Rental Equipment:

(a) OBSERVATION: Rental equipment for this period has been subjected to such tight controls, that the missions of both battalions within 44th Engineer Group have been hampered.

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(b) EVALUATION: No new rental requests have been processed during this reporting period, however there are a few pending and several old ones that will expire soon. Command emphasis for curtailment of local spending remains. However, if the situation does not change, the Group will be faced with slippage of completion dates for its projects.

(c) RECOMMENDATION: That critical requirements for rental equipment be authorized.

f. Organization:

(1) OBSERVATIONS: The organization chart and staff directory can be seen in inclosures 2 and 3. The relocation of the battalions into geographic areas of responsibility has been accomplished. Both battalions are in their best locations for control since they arrived in Thailand. The 528th Engineer Detachment (Utility) is totally engaged in construction at Camp Friendship, and is practicing a high degree of construction skill.

(2) EVALUATIONS: The assignment of battalions to geographic areas of responsibility has had a noticable effect on the morale of the battalions. Duplicated and overlapped administrative functions have been eliminated and clear-cut lines of operational control have been established.

(3) RECOMMENDATION: That other units benefit from this experience.

g. Other: None.

15 Incls

1 Line of Communication

2-Organization Chart

3 Staff Directory

~~4-15 Construction Photographs~~

Incls 4 - 15 wd Hq DA



H. M. Hatch

COL, CE

Commanding

THOP-MH (15 Nov 68) 1st Ind

SUBJECT: Operational Report of the 44th Engineer Group (Construction) for  
the Period Ending 31 October 1968 RCS-CSFOR-65 (RI), UIC: WA93AA

DA, Headquarters, United States Army Support, Thailand, APO 96233

21 DEC 1968

TO: Assistant Chief of Staff for Force Development, Department of the  
Army, Washington, D.C. 20310

1. The Operational Report of the 44th Engineer Group (Const) has been reviewed and is forwarded with the following comments.
2. Concur with the observation at para 2a and para 2b that many replacements are not qualified in the MOS in which assigned. This however is not because of the lack of an effective personnel management program. Because of the high "no-show" rate of incoming personnel and the diversion of personnel to fill proposed TDA and MTOE positions, the whole command suffers from a shortage of qualified personnel and it is necessary to resort to bulk fill. All possible efforts are being made to have MOS qualified personnel assigned to this command.
3. Concur with the comments and recommendations at para 2b(2). The use of sandbags to stabilize and protect underground pipe during installation has proven highly effective and should be taught for use under wet, soggy conditions.
4. Concur with the action described at para 2c. Integration of 44th Engr Gp personnel into the training scheduled by 9th Log Command has a dual advantage for the Engr Gp. It permits the Engineers to take advantage of the qualified instructors of 9th Log Command without causing extra classes to be scheduled and it provides training to Engineer troops with a minimum loss of time among Engineer supervisory personnel. This arrangement creates no hardship on the 9th Log Command as they must schedule these classes for their own people. This method of training in specialized fields is recommended for other commands.
5. The actions described at para 2d are in accordance with current directives and require no further comment.
6. Nonconcur with the comments at para 2e(1). Some 10 ton tractors and water distributors have arrived in country. Eighteen scoop loaders and fifteen cranes are programmed into country during 3d and 4th QTR FY 69. Receipt of this equipment should improve the shortage situation. DA has determined that the HD-16 full tracked tractor will replace the TD-24 tractor and has standardized it for Thailand. The HD-16 is issued in 2 configurations, heavy and medium. Most HD-16's in country or

THOP-ME (15 Nov 68) 1st Ind

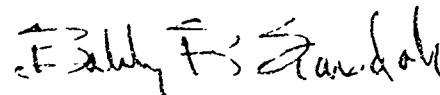
SUBJECT: Operational Report of the 44th Engineer Group (Construction)<sup>21</sup> for  
the Period Ending 31 October 1968 RCS-CSFOR-65 (RI), UIC: WA93AA

programmed are the heavy variety. The H90M Hough Scoop Loader is replacing current models for the same reason. Equipment defects and recommendations for improvement should be submitted IAW TM 38-750. Closed Loop System input is dependent upon DA approved overhaul schedules and production releases.

7. Nonconcur with the comments and recommendation at para 2e(2). USARPAC has directed that completion dates for projects be adjusted to coincide with TO&E capabilities. The continued use of rental equipment to expand troop unit capabilities would have an adverse effect on USARSUPTHAI Gold Flow objectives.

8. Concur with the observations and recommendation at para 2f of the report.

FOR THE COMMANDER:



DOREY E. SCARSDALE  
MAJ, AGC  
Asst Adjutant General

GPOP-DT (15 Nov 68) 2d Ind


SUBJECT: Operational Report of the 44th Engineer Group (Construction)  
for the Period Ending 31 October 1968, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 9 JAN 1969

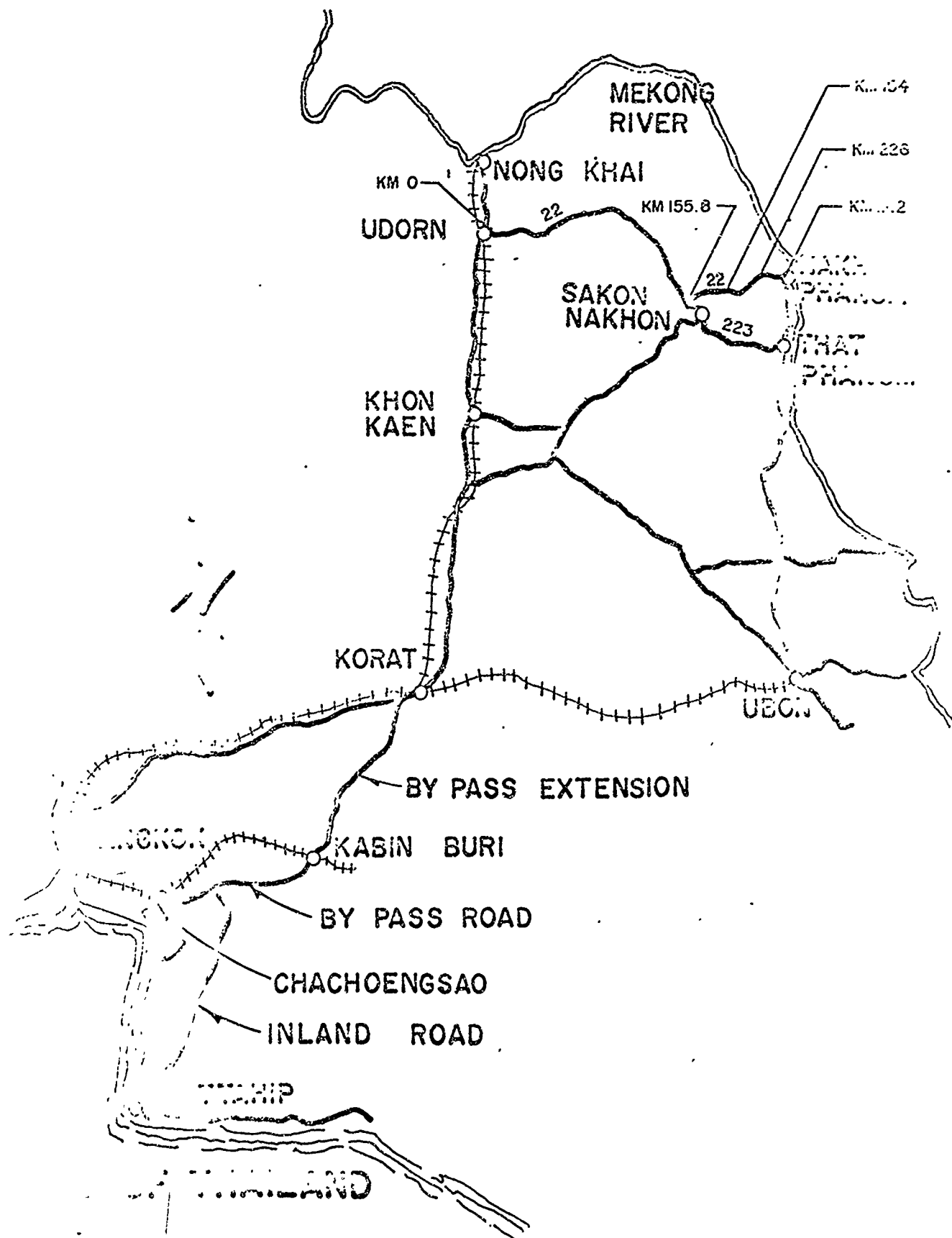
TO: Assistant Chief of Staff for Force Development, Department of the  
Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorsement  
and concurs in the report as indorsed.

FOR THE COMMANDER IN CHIEF:

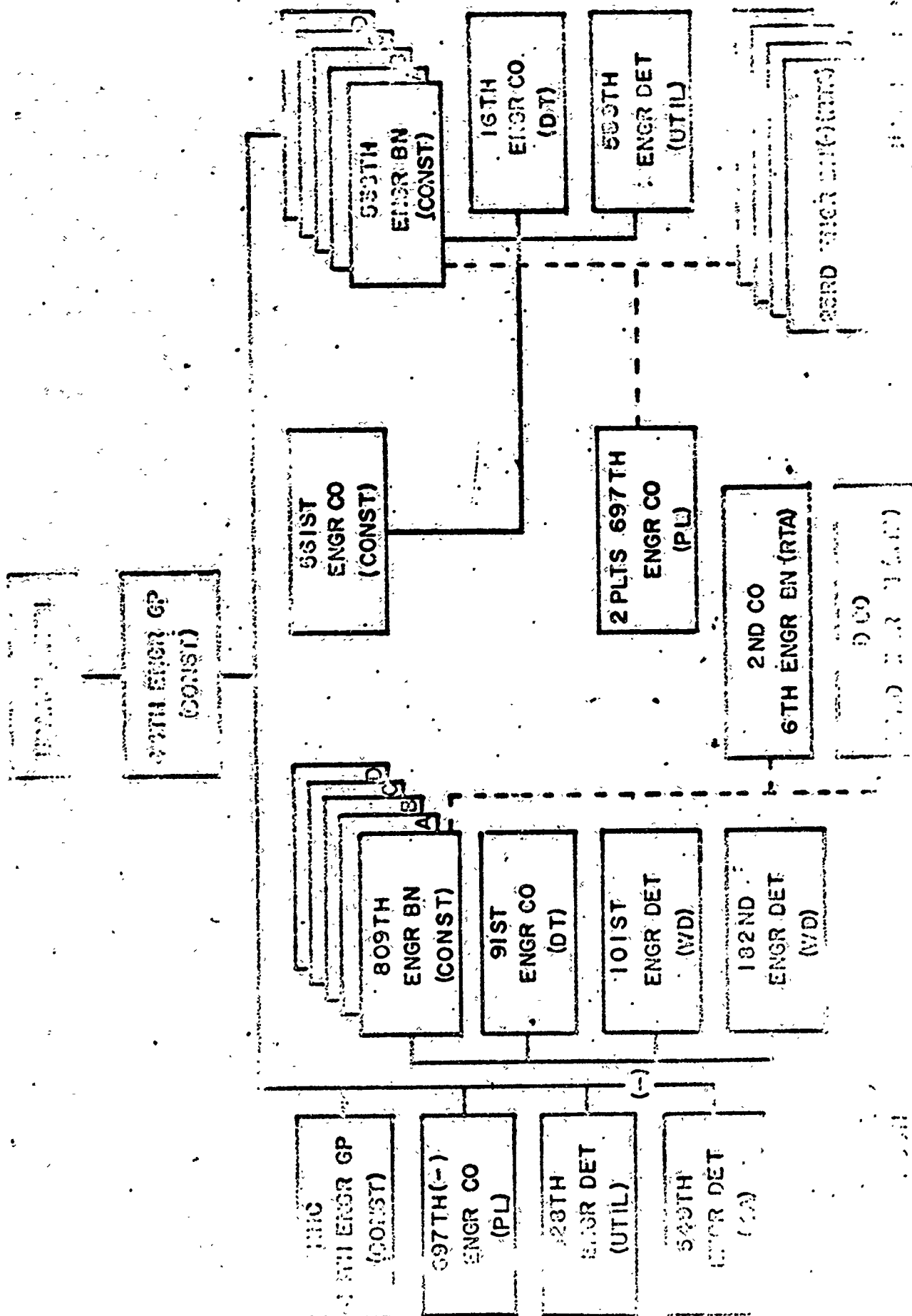
  
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Asst AG

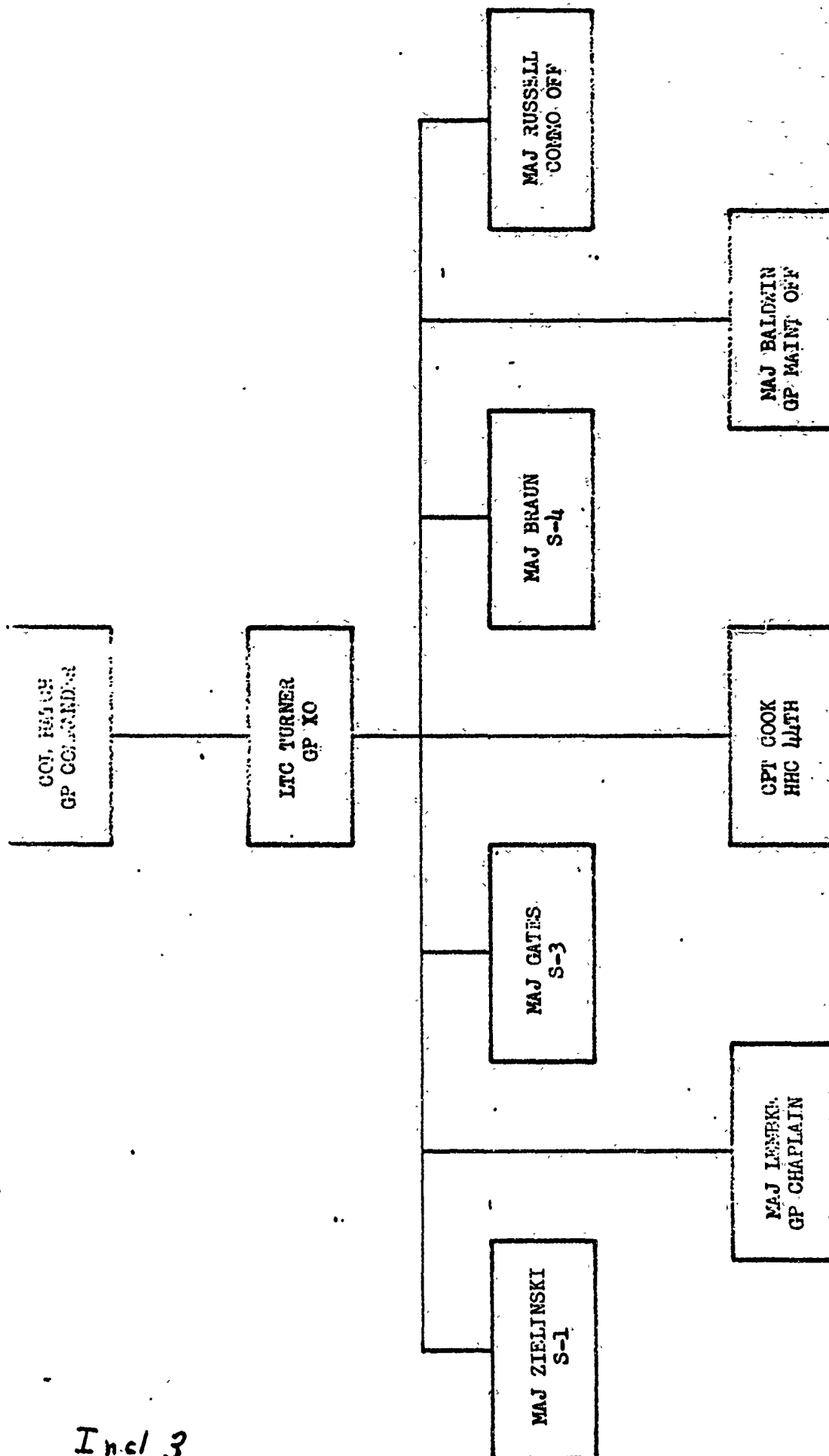




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